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REMARKS

Claims 1-19 are presently pending and stand variously rejected under 35 U.S.C. §§ 102 and 103.

The specification has been amended herein to eliminate a reference to the claim. No new matter has been added as a result of these amendments and entry thereof is respectfully requested.

Drawings

The Examiner has required a drawing in the pending claims.

Applicants submit that this objection is made in error -- drawings are not required in an application for patent except in the case where **necessary** for the understanding of the subject matter sought to be patented. See, 37 C.F.R. 1.81(a), emphasis added. Clearly, in the pending application, words describing how the turns of the tubular structure are not touching are more than sufficient to allow an understanding of the invention. Simply put, drawings are not necessary to an understanding of this claimed feature. Indeed, words have more than adequately explained the claimed invention.

Nonetheless, in order to advance prosecution, submitted herewith is a drawing in which an implantable device (*e.g.,* a vaso-occlusive coil) is depicted with multiple detachment points, each detachment junction being severable by application of a different frequency of electro-magnetic radiation. Accordingly, withdrawal of this objection is respectfully requested.

Rejections Under 35 U.S.C. § 102

The Examiner asserts that claims 1, 5, 6 and 10 are allegedly anticipated under 35 U.S.C. 102(e) by U.S. Patent No. 6,258,117 (hereinafter "Camrud"). Camrud (particular the Figures of this reference) is cited for teaching a stent or coil having a plurality of detachment junction which are separated by resorption of junction material and which are capable of being cleaved by the application of electromagnetic energy. (See, Office Action, pages 2-3). In addition, claims 1-7, 10, 11, 13, 15 and 16 stand rejected as allegedly anticipated under 35 U.S.C. 102(e) by U.S. Patent No. 6,086,599 (hereinafter "Lee"). Lee is cited for allegedly disclosing an implantable device with a plurality of detachment members that can be detached using electromagnetic radiation. (See, Office Action, page 3).

In order to be an anticipatory reference, the single reference cited by the Office must disclose each and every element of the claims. *Hybritech v. Monoclonal Antibodies,* 231 USPQ 81 (Fed. Cir. 1986). Moreover, the single source must disclose all of the claimed elements arranged as in the claims. *See, e.g., Richardson v. Suzuki Motor Co.,* 9 USPQ2d 1913 (Fed. Cir. 1989). Simply put, the law requires identity as between the prior art disclosure and the invention. *See, e.g., Kalman v. Kimberly-Clark Corp.* 218 USPQ 781 (Fed. Cir. 1983), *cert. denied,* 484 US 1007 (1988).

In the case at hand, Carmud and Lee do not disclose each and every element of the claims 1-7, 10, 11, 13, 15 and 16. In particular, the pending claims are directed to implantable devices having multiple detachment junctions. Moreover, each detachment junction must be cleaved by application of a different wavelength of electromagnetic radiation. In sharp contrast, Carmud's and Lee's devices do not include junctions that necessarily cleaved by different wavelengths of electro-magnetic radiation. Rather, to the extent that Lee or Carmud disclose implantable devices with multiple detachment junctions, each junction is cleaved by the application of the same mechanism (*i.e.,* the same wavelength of radiation, the same temperature, etc.). Thus, because Carmud and Lee fail to describe or demonstrate the characteristics of the claimed devices, as recited in the claims, these references do not anticipate any of the pending claims and withdrawal of the rejection is in order.

Rejections Under 35 U.S.C. § 103

The Examiner has also rejected claims 8 and 9 as allegedly obvious over Lee. Claims 12, 17-19 stand rejected as allegedly obvious over Lee in view of U.S. Patent No. 6,102,917 (hereinafter "Maitland"). (Office Action, pages 3-4).

Lee is cited as above with regards to claim 1-7, 10, 11, 13, 15 and 16. Maitland is cited for teaching that laser energy can be applied to release an object from a catheter. Thus, the Examiner maintains that:

> It would have been obvious to one or ordinary skill in the art to use laser light to provide radiant energy as taught by Maitland in the system of Lee in order to separate the detachment members such that when the junction is cleaved, energy is removed. (Office Action, page 4).

Applicants traverse the rejections and supporting remarks. In order to render claims obvious, the burden is on the Office to establish that the combination of cited references teach all

the limitations of the claimed invention and, moreover, the references suggest the desirability of arriving at the claimed subject matter. (*See, e.g., Amgen, Inc. v. Chugai Pharm. Co.,* 18 USPQ2d 1016, 1023 (Fed. Cir. 1991) stating that "hindsight is not a justifiable basis on which to find that the ultimate achievement of along sought and difficult scientific goal was obvious" and *In re Laskowski,* 10 USPQ2d 1397, 1399 (Fed. Cir. 1989) stating that "the mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."). Nor can the Examiner simply state that the general level of skill in the art was high and, accordingly, the motivation is present. *See, e.g., In re Rouffet,* 47 USPQ2d 1453 (Fed. Cir. 1998) noting that the Office cannot rely on a high level of skill in the art to overcome the differences between the selected elements in the references, it cannot rely on a high level of skill in the art to provide the necessary motivation. Finally, common knowledge and common sense are not the specialized knowledge and expertise necessary to establish a motivation to arrive at the claimed invention. (See, *In re Lee,* 61 USPQ2d 1430 (Fed. Cir. 2002)).

In the pending case, the Office has not established that the combination of cited references teach all the limitations of claims 8, 9, 12, 17-19 and, in addition, has not established that the references suggest the desirability of modifying the references to arrive at the precisely claimed invention.

With regard to the primary reference, Applicants note as above that Lee fails entirely to describe, demonstrate or suggest implantable devices having a multiple detachment junctions, each of which is cleaved by a different wavelength of electro-magnetic radiation. Lee is directed entirely to micro-devices made of shape memory polymers in which the mated connections are all detached (or reattached) using the same mechanism, namely the by thermal heating. (See, Lee, column 3, lines 11 to 31). There is absolutely no teaching or suggestion in Lee that each detachment junction of a device be cleaved by different wavelengths of electromagnetic radiation, as claimed by Applicants. Thus, Lee fails to teach all the limitations of any of the pending claims and, additionally, provides no motivation to combine its teachings with Maitland.

For its part, Maitland, like Lee, fails to teach the use of different wavelengths to cleave a single implantable device at multiple detachment points. Therefore, the combination of Lee and Maitland would in no way lead one skilled in the art to the claimed devices.

In sum, because the claims are not obvious over any combination of the cited references, the rejections are improper and Applicants request that it be withdrawn.

CONCLUSION

For the reasons discussed above, Applicants submit that the claims are in condition for allowance and request early notification to that effect.

If the Examiner has any further issues or wishes to discuss any of the foregoing, he is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning on line 23 of page 3 has been amended as follows:

--In another aspect, the invention includes an assembly for use in delivering an implantable device comprising (a) an implantable device ~~according to claim 1~~ as described herein; and (b) a deployment mechanism. In certain embodiments, the deployment mechanism comprises one or more electro-magnetic radiation transmitting devices, for example one or more fiber optic cables; one or more light-transmitting fluids; one or more light-transmitting wires; or the like. The implantable device can be, for example, a vaso-occlusive coil, a stent, a filter or the like. In various embodiments, the assemblies described herein further include a source of electro-magnetic radiation attached to the delivery mechanism, for example a light source (*e.g.*, laser).--

The following paragraph has been inserted on page 4, line 5:

– BRIEF DESCRIPTION OF THE FIGURES

Figure 1 shows an exemplary implantable vaso-occlusive coil **138** having multiple detachment junctions **140, 141, 142**. Each detachment junction is detached (severed) using a different wavelength of electro-magnetic radiation. –

PENDING CLAIMS

1. An implantable device comprising a plurality of detachment junctions, wherein each junction is cleaved by the application of a different wavelength of electro-magnetic radiation.

2. The device of claim 1, wherein the electro-magnetic radiation is light.

3. The device of claim 1, wherein one or more junctions comprise a shape memory polymer.

4. The device of claim 2, wherein one or more junctions further comprise one or more dyes or pigments.

5. The device of claim 1, wherein the implantable device comprises a vaso-occlusive coil.

6. The device of claim 1, wherein the implantable device comprises a stent.

7. The device of claim 1, wherein the implantable device comprises a filter.

8. The device of claim 2, wherein the light is visible light.

9. The device of claim 2, wherein the light is non-visible light.

10. An assembly for use in delivering an implantable device comprising
    (a) an implantable device according to claim 1; and
    (b) a deployment mechanism.

11. The assembly of claim 10, wherein the deployment mechanism comprises one or more electro-magnetic radiation transmitting devices.

12. The assembly of claim 11, wherein the electro-magnetic radiation transmitting device comprises one or more fiber optic cables.

13. The assembly of claim 11, wherein the electro-magnetic radiation transmitting device comprises one or more light-transmitting fluids.

14. The assembly of claim 11, wherein the electro-magnetic radiation transmitting device comprises one or more light-transmitting wires.

15. The assembly of claim 11, wherein the implantable device comprises a vaso-occlusive coil.

16. The assembly of claim 11, wherein the implantable device comprises a stent.

17. The assembly of claim 11, further comprising

(d) a source of electro-magnetic radiation attached to the delivery mechanism.

18. The assembly of claim 17, wherein the electro-magnetic radiation is light.

19. The assembly of claim 18, wherein the light source comprises a laser.

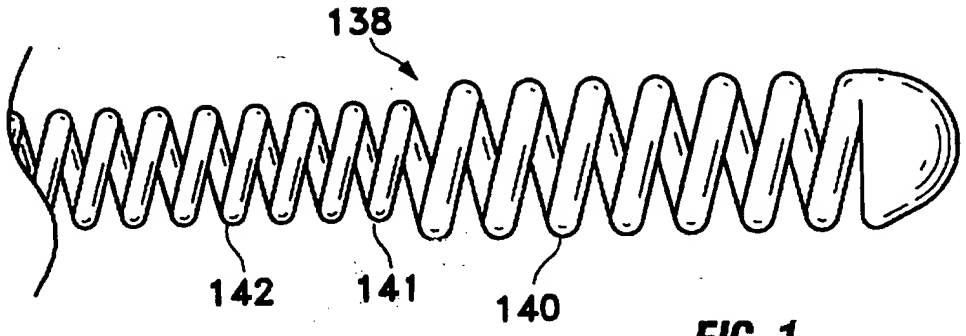

FIG. 1